

ABSTRACT

The fuel cell system comprises a fuel cell stack, a fuel gas supply unit, an oxidation gas supply unit, a fuel cell cooling unit, a fuel gas humidifier, an oxidation gas humidifier, and a control unit. The fuel gas humidifier humidifies fuel gas that is supplied to the fuel cell stack from the fuel gas supply unit by using remaining fuel gas that is exhausted from the fuel cell stack. The oxidation gas humidifier humidifies oxidation gas that is supplied to the fuel cell stack from the oxidation gas supply unit by using remaining oxidation gas that is exhausted from the fuel cell stack.